

Figure 1

Match 70.5%; QryMatch 68.4%; Matches 572; Conservative 105; Mismatches 121;
Indels 13; Gaps 6;

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*****
ZPEP_m      1 MDQREILQQLLEAQQKKLNSEEFASEFLKLRQSTKYKADKIYPTTVAQRPKNIKQRY 60
SuPTP04_h   1 MDQREILQKFLDEAQSKKITKEEFANEFKLRQSTKYKADKIYPTTVAEKPKNIKQRY 60

*****
ZPEP_m      61 KDILPYDHSVLVELSLLTSDEDESSYINASF IKG VYGPKAYIATQGPLSTTLDFWRMIWEY 120
SuPTP04_h   61 KDILPYDYSRVELSLITSDEDESSYINANF IKG VYGPKAYIATQGPLSTTLDFWRMIWEY 120

*****
ZPEP_m      121 RILVIVMACMEFEMGKKKCERYWAEPGETQLQFGPFSISCEAEKKKSDYKIRTLKAKFN 180
SuPTP04_h   121 SVLIIVMACMEYEMGKKKCERYWAEPGEMQLEFGPFSVSCAEKKKSDYIIRTLKVKFNS 180

*****
ZPEP_m      181 ETRIYQPHYKNWPDHVPSSIDPILQLIWDNRQYQEDDCVFIHCSAGCGRTGVICAV 240
SuPTP04_h   181 ETRIYQPHYKNWPDHVPSSIDPILQLIWDNRQYQEDDSVPFIHCSAGCGRTGVICAI 240

*****
ZPEP_m      241 DYTWMLLKDGIIIPKQFVFNLIQEMRTQRPRLVQTQEQVELVYSAVLELFKRHMDVSDN 300
SuPTP04_h   241 DYTWMLLKDGIIIPENFVFNLIQEMRTQRPRLVQTQEQVELVYNAVLELFKRQMDVIRDK 300

*****
ZPEP_m      301 HLGREIQACQSIPEQSLTVEADSCFLDLPKNAMRDVKTTNQHSKQGAESTGSSSLGLR 360
SuPTP04_h   301 HSGTESQAKHCIPENHTLQADSYSPNLPKSTTKAAGMMNQQR---TKMEIKESSTFR 357

*****
ZPEP_m      361 TSTNNAEELVLHSAKSSPSFNCLELNCGNKAVITRNGQARASPVVGEPLQKYQSLDF 420
SuPTP04_h   358 TSEISAKEELVLHPAKSSTSPDFLELNYSPDKNADTTMKWQTKAFPIVGEFLQKHQSLDL 417

*****
ZPEP_m      421 GSMLFGSCPSALPINTADRYHNSKGFVKRTKSTPFELIQQRKTNDLAUGDGFSCLESQ 480
SuPTP04_h   418 GSLLFEGCSNSKPVNAAGRYFNSKVPITRTKSTPFELIQQRKTNDLAUGDGFSCLESQ 477

*****
ZPEP_m      481 EHYSRLRELQVRVAHVSSSEELNYSLPAC-----DASCVRHSPGALRVHLYTSLAEDPY 535
SuPTP04_h   478 DSCFV-ENQAQKVMHVSSAELNYSLPYDSKQIRNASNVKQHDSSALGVYSYIPLVENFY 536

*****
ZPEP_m      536 FSSSPFNSADSKMSFDLFEKQDGTSPGALLPASSTTSFFYSNPHDSLVMNTLTSTSPPL 595
SuPTP04_h   537 FSSWPPSGTSSKMSLDLFEKQDGTVPFSSLLPTSSTSLPSYNSHDSLNLNPTNISLL 596

*****
ZPEP_m      596 NQETAVEAPSRRTDDEIPPLPERTPESFIVVEEAGEPSFRVTESLP--LVVTFGASPEC 653
SuPTP04_h   597 NQESAVLATAFRIDDEIPPLPVRTPEFIVVEEAGEPSFNVPKSLSSAVKVKIGTSLEW 656

*****
ZPEP_m      654 SGTSE-MKSHDSVGFTPSKNVLKRSFKSDRHQD-GSPPPPLPERTLESFFLADEDCIQAQ 711
SuPTP04_h   657 GGTSEPKKFDOSVILRPSKSVKLRSPKSELHQDRSSPPPLPERTLESFFLADEDCMQAQ 716

*****
ZPEP_m      712 AVQTSSTSYPETTENSTSSKQTLRTFGKSFTTRSKSLKIPRNMKKSVCNSSSPSKPTERVQ 771
SuPTP04_h   717 SIETYSTSYPTMENSTSSKQTLRTFGKSFTTRSKSLKILRNMGKSIENSCFPNKPASVQ 776

*****
ZPEP_m      772 PKNSSSFLNFGGNRFSPKPKGPRNPPSAWNM 802
SuPTP04_h   777 SNSSSFLNFGFANRFSPKPKGPRNPPPTWNT 807
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PTP04-related disorders